

Fit to Drive

4th International Traffic Expert Congress
Tallinn from June 4th - 5th 2009



Welcome



„Personality measurement in traffic psychological assessment“

Margit Herle

SCHUHFRIED GmbH, Mödling

AAAV, Vienna

- Background

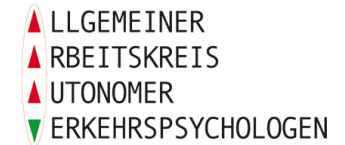
- testing of willingness to adapt to traffic rules and conditions is an important purpose of traffic psychological assessment
- classical questionnaire-based methods of personality measurement are relatively susceptible to faking
- This study sets out to investigate whether the risk of faking in questionnaire-based methods can be reduced to at least an acceptable level.

- Method
 - 2 computerised personality tests used in traffic psychological assessment (EPP6, IVPE)
 - 3 experimental conditions
 - truth instruction
 - faking instruction,
 - faking instruction with advertised checking



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- Sample

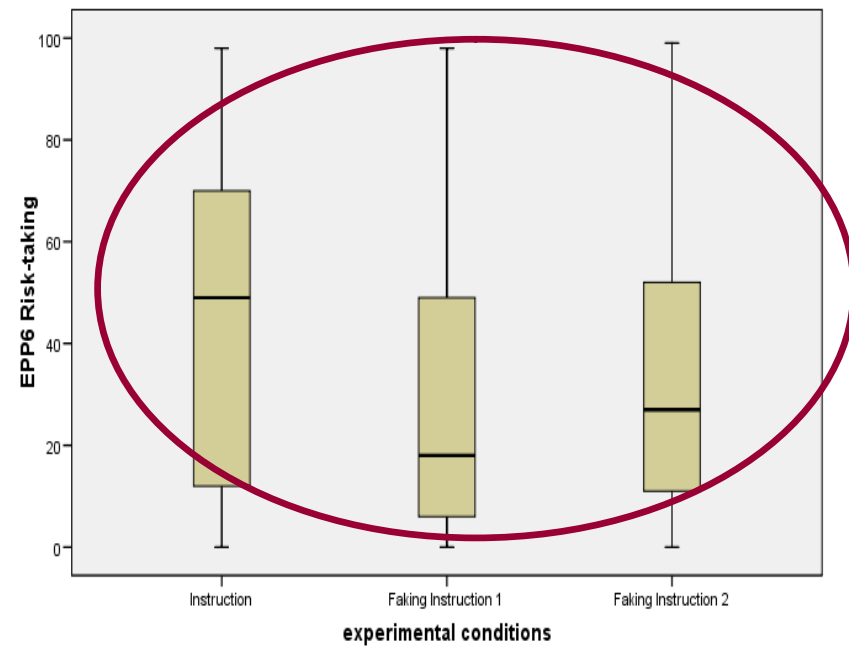
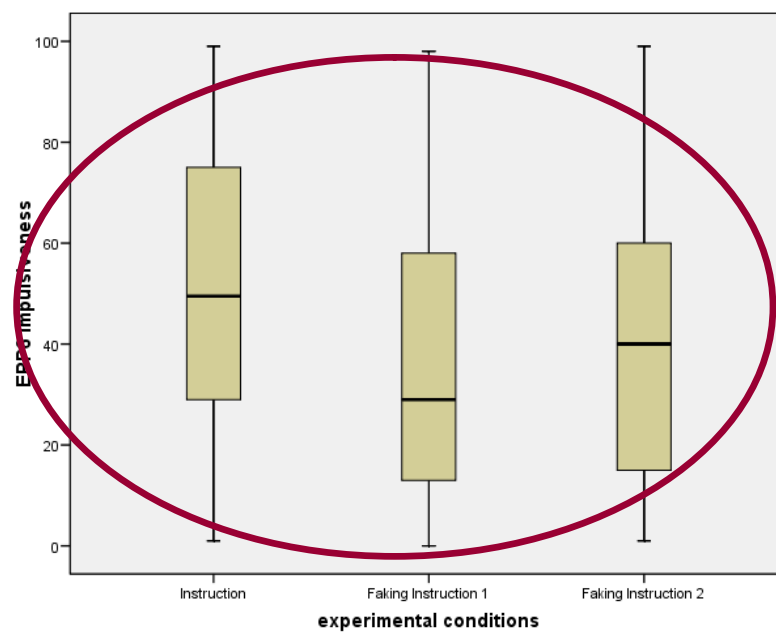
N=295

- Age: 17 - 86; Md=44; Std=18
- 46% ♂, 54% ♀
- EU educational level 1: 1%, EU educational level 2: 24%;
EU educational level 3: 49% ; EU educational level 4: 17%;
EU educational level 5: 9%
- truth instruction: 32%
faking instruction: 33%
faking instruction with advertised checking: 35%



- Results

EPP6: 3 scales show significant and relevant faking effects





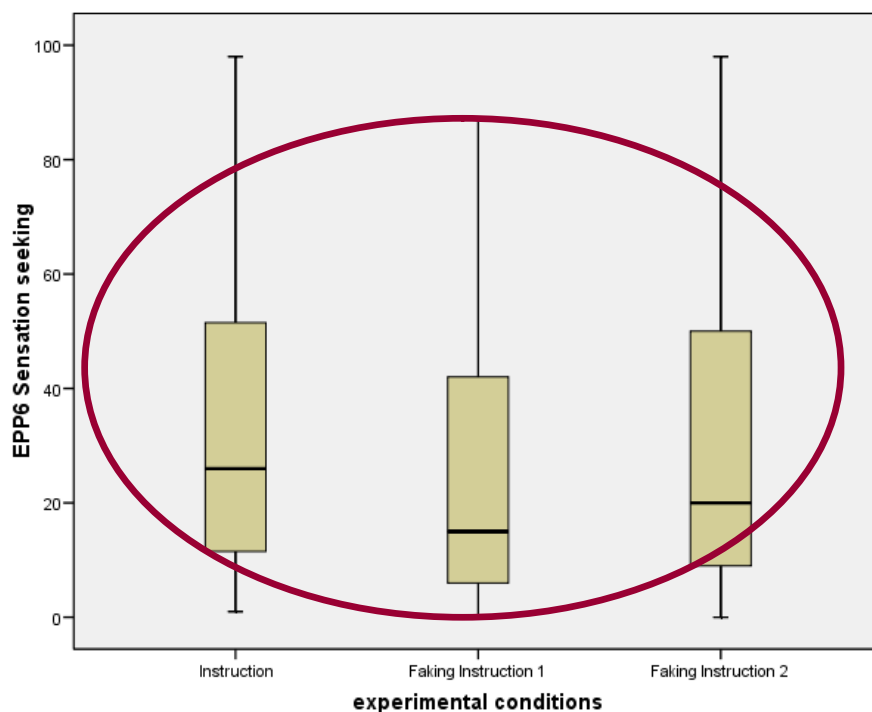
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Qualität durch Kompetenz

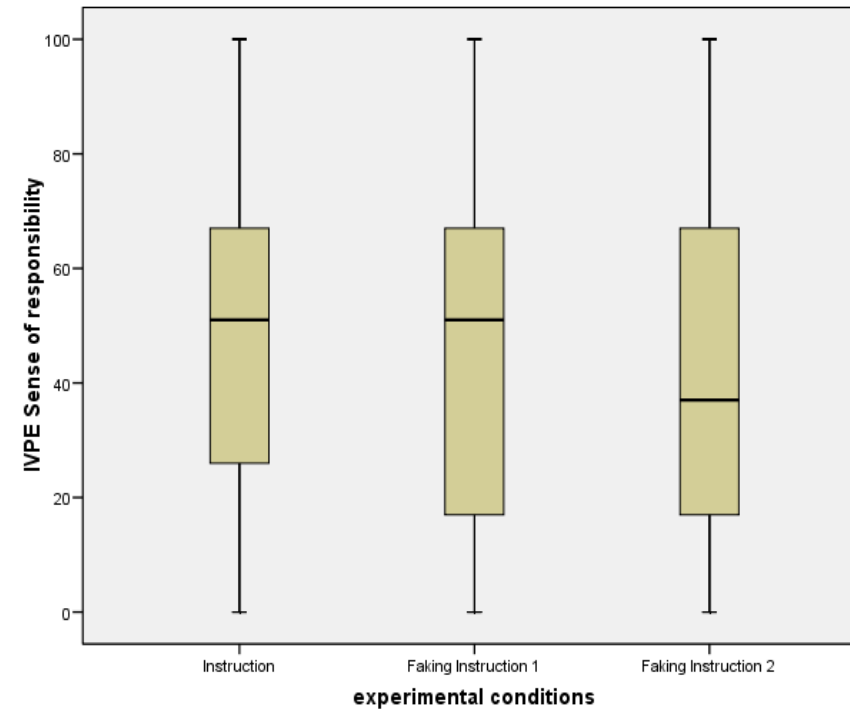
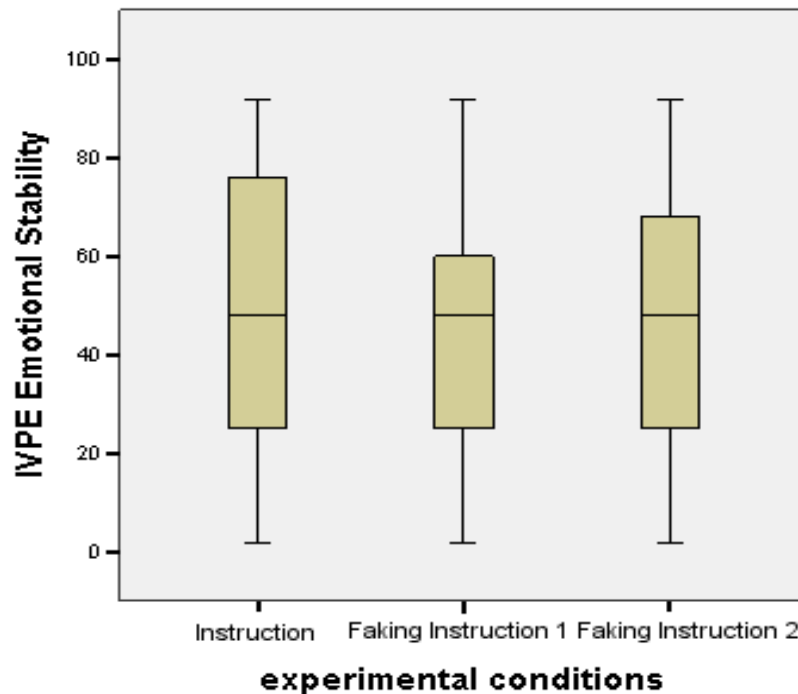
- ▲ ALLGEMEINER
- ▲ BEREITSKREIS
- ▲ AUTONOMER
- ▼ VERKEHRSPSYCHOLOGEN



EPP6 Variable	Mean
Risk-taking	
No faking	18.86
Faking instruction 1	15.36
Faking instruction 2	16.84
Impulsiveness	
No faking	18.34
Faking instruction	15.47
Faking instruction 2	16.70
Sensation-seeking	
No faking	16.86
Faking instruction	14.12
Faking instruction	15.38



IVPE: no relevant faking effects were found. Under the faking condition, in particular, only very small mean differences were obtained



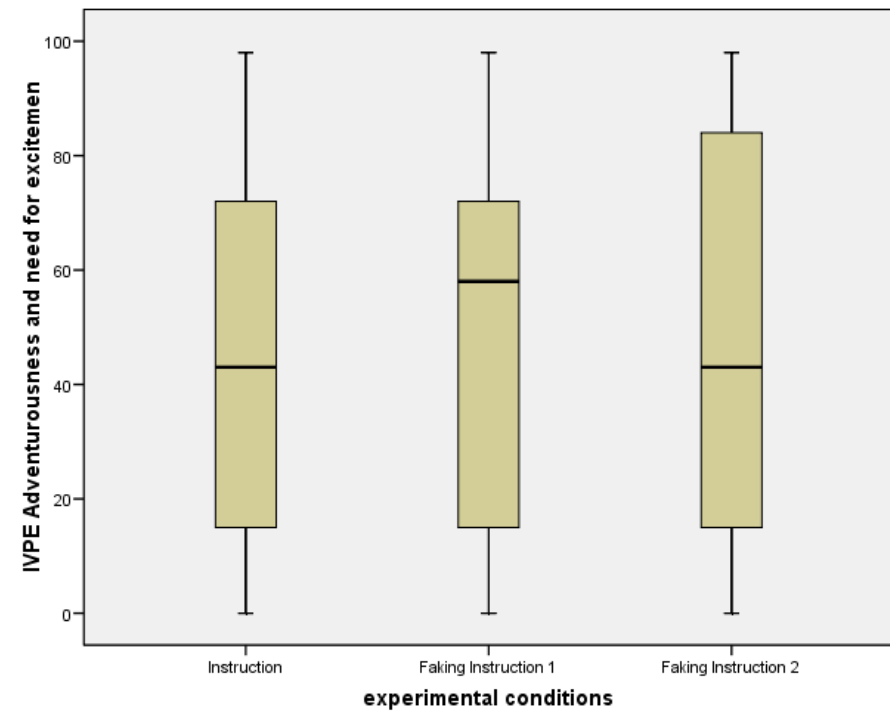
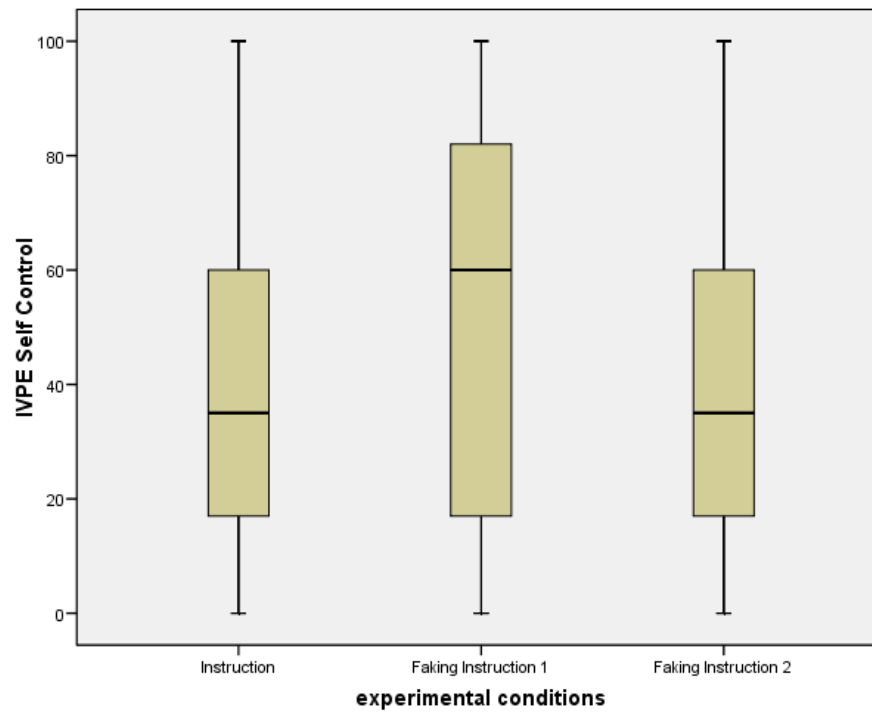


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Under Faking instruction 1 some respondents represent themselves as even more self-critical than under the honesty condition.

IVPE Variable	Mean
Emotional stability	
No faking	3.23
Faking instruction 1	3.36
Faking instruction 2	3.47

IVPE Variable	Mean
Sense of responsibility	
No faking	6.16
Faking instruction 1	6.02
Faking instruction 2	5.87
Self control	
No faking	4.14
Faking instruction	4.25
Faking instruction 2	4.20
Adventurousness and need for excitement	
No faking	5.05
Faking instruction	4.51
Faking instruction	4.69

Faking effects were calculated as a point-biserial correlation between the experimental condition and the test score.

EPP6 variable	Faking effect
Aggression	-0.033
Risk taking	-0.178**
Impulsivity	-0.153**
Irresponsibility	-0.027
Sensation-seeking	-0.114*

IVPE variable	Faking effect
Emotional stability	-0.052
Sense of responsibility	-0.045
Self-control	0.025
Adventurousness and need for excitement	0.091

The faking effects on the IVPE, which were in any case not at above-chance level, were reduced still further when the honesty scale was included in the judgement formation

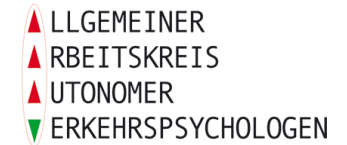
IVPE Variable	Faking effect	Corrected faking effect
Emotional stability	-0.052	-0.022
Sense of responsibility	-0.045	-0.045
Self-control	0.025	-0.011
Adventurousness and need for excitement	0.091	0.048

- Discussion
 - It must be shown that the risk of faking the tests used in traffic psychological assessment is small and within acceptable limits.
 - Well thought-out test design can make even questionnaires of the classical type relatively secure against faking.
 - Analogue scale was particularly effective when used in combination with an instruction informing respondents that their answers would be checked for credibility.
 - As a conclusion, a stronger focus should be set on research and evaluation of methods to increase test safety especially for the assessment of personality aspects relevant for the willingness to adapt to traffic rules and conditions



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Thank you for your attention